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25-98

Claims as allowed 7/17/01

1. A non-naturally occurring nucleic acid molecule comprising a portion which encodes a truncated ultraviolet damage endonuclease (Uve1p), said truncated Uve1p characterized by an amino acid sequence extending from a position between 329 and 479 as given in SEQ ID NO:2 and extending through amino acid 828 of SEQ ID NO:2.
2. The non-naturally occurring nucleic acid molecule of claim 1 encoding a stable truncated Uve1p characterized by an amino acid sequence as given in SEQ ID NO:2, amino acids 330 to 828.
3. The non-naturally occurring nucleic acid molecule of claim 1 encoding a stable truncated Uve1p characterized by an amino acid sequence as given in SEQ ID NO:2, amino acids 458 to 828.
4. A non-naturally occurring nucleic acid molecule encoding a stable truncated Uve1p characterized by an amino acid sequence as given in SEQ ID NO:2, amino acids 518 to 828.
5. The non-naturally occurring nucleic acid molecule of claim 3 encoding a stable truncated Uve1p, wherein said stable truncated Uve1p is encoded by a nucleotide sequence as given in SEQ NO:3.
6. The non-naturally occurring nucleic acid molecule of claim 1, wherein said nucleic acid molecule is a vector molecule.
7. A substantially purified stable truncated UV damage endonuclease (Uve1p) wherein said Uve1p has amino acid sequence as given in SEQ ID NO:2, wherein its amino-terminus is between about amino acid 329 and about amino acid 479, and extends through amino acid 828 of SEQ ID NO:2.

8. The substantially purified stable truncated Uve1p of claim 7 wherein its amino acid sequence is as given in SEQ ID NO:2, amino acid 458 through amino acid 828.
9. The substantially purified stable truncated Uve1p of claim 8 further comprising a polypeptide portion identified by an amino acid sequence as given in SEQ ID NO:8 covalently joined at its amino terminus.
10. The substantially purified stable truncated Uve1p of claim 7 wherein said Uve1p has an amino acid sequence as given in SEQ ID NO:2, amino acid 33058 through amino acid 828.
11. The substantially purified stable truncated Uve1p of claim 10 further a polypeptide portion identified by an amino acid sequence as given in SEQ ID NO:8 covalently joined at its N-terminus.
12. A composition comprising a substantially purified stable truncated Uve1p of claim 7 and a pharmacologically acceptable carrier.
13. The composition of claim 12 wherein said truncated Uve1p has an amino acid sequence as given in SEQ ID NO:4.
14. The composition of claim 12 which is formulated for topical application to skin of a human or an animal.
15. The composition of claim 12 which is formulated for internal use in a human or an animal.

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